CHAPTER V

FUNDING NEEDS

The Californians who live near ports, rail yards, and along high traffic corridors, are subsidizing the goods movement sector with their health. This plan identifies technically feasible ways to reduce emissions from the goods movement sector and reduce those health impacts. Chapter IV put the total price tag for this emission reduction plan at $3 to $6 billion over 15 years (in present value dollars) and the benefits at approximately $23 billion. This chapter discusses options for paying these costs including traditional regulations, taxpayer assistance in the form of incentives or other subsidies, user-based fees, and market-based strategies. ARB staff's intent is not to resolve the question in this document but to lay out options and initiate a broader discussion.

In general, ARB staff presumes that traditional regulations (which place the costs of control on the owners and operators of polluting sources) will provide the lion's share of progress needed to protect public health and attain ambient air quality standards. But air pollution from ports and goods movement raises some special issues. The health impacts on nearby communities are highly concentrated and the need for mitigation is urgent. These effects are exacerbated by the pace of growth in international trade from the Pacific Rim. Accordingly, ARB staff is examining whether new funding can expedite relief from the existing health threat and mitigate the anticipated impacts of future cargo imports. Fee mechanisms may be needed to attract the cleanest ships and to provide alternative financing to secure emission reductions in and near impacted communities. The economic viability of some of the sources (like an owner with a single port truck or a single commercial fishing vessel) also creates a situation where financial assistance may be essential to support the needed upgrade to cleaner equipment.

A. REGULATIONS VERSUS INCENTIVES

Over the past 50 years, California has steadily improved air quality in the face of tremendous economic and population growth. The vast majority of that progress has come from effective regulations. Accordingly, ARB staff expects state and federal regulations to play the primary role in implementing this plan. In the regulatory paradigm, polluting sources pay for the necessary emission controls. Regulations are crafted so that industries can absorb the expense of installing pollution controls or upgrading technology as part of the cost of doing business. Regulated industries pass these costs on to consumers in the form of higher prices, although competition and other factors may prevent some companies from recouping all of their control costs. Low-interest loans with extended payment periods are available to aid smaller businesses that need upfront capital to comply.

In recent years regulatory programs have been supplemented with incentives to accelerate voluntary actions such as replacing older equipment. Incentive programs like the Carl Moyer Program are both popular and effective. They also help to demonstrate emerging technologies that then set a tougher emissions benchmark for regulatory requirements. Most of the existing incentive programs are designed to pay for the incremental cost between what is required and advanced technology that exceeds that level. The incentive programs are publicly funded by general fund taxes or by fees imposed on California drivers as part of their annual registrations, smog inspections or new tire purchases. California is currently investing up to $140 million per year to clean up older, higher emission sources. Ten percent of the Carl Moyer funds that flow through the state budget are reserved, by ARB, for projects of statewide significance, including goods movement-related clean up. The U.S. Congress recently authorized a similar diesel emissions reduction program at the national level for $200 million per year over five years, but has not yet appropriated funds for that purpose.

The question has arisen – should the Carl Moyer Program (or similar programs) be expanded to address goods movement emissions? The answer is yes. But while all of the private sector would appreciate financial support in reducing emissions, ARB staff believes that such incentives should be targeted to those owner/operators that are least able to help themselves. In that regard, ARB staff has identified a need for approximately $1.0 billion to subsidize the clean-up of older, high emitting port trucks. These vehicles are owned predominantly by single owner-operators who lack the resources to comply with a mandatory vehicle retirement program. State subsidies would enable a rapid turnover of these vehicles to newer models, newer engines, and/or the application of highly effective retrofit devices. Moreover, making this happen as quickly as possible is imperative given the disproportionate impact emissions from these trucks have on nearby communities.

How should that money be raised? There are several options. Motor vehicle revenues could be set aside for this purpose, either as an expansion of the Carl Moyer Program or as a new subsidy. Alternatively, state or local general obligation bonds could be issued to generate revenues for a special port-related incentive program. Several state legislators are drafting bond measures of up to $5 billion to fund dockside electricity projects for ships and other emission reduction projects. This strategy, though not capacity-based, could arguably fit under a broad port modernization heading. Finally, the private sector might be induced to pay for port truck turn-over, in exchange for greater regulatory flexibility elsewhere.

There is also a need to co-fund focused demonstration projects to test special fuels in the marine environment, and to evaluate the transferability of stationary or mobile emission controls to marine vessel engines. These projects are not eligible for Carl Moyer funds since they generally do not result in permanent emission reductions and do not utilize “verified” devices. However, they are vital to evaluating technological feasibility and overcoming owner/operator reluctance to shift to unproven emission control techniques. ARB staff believes a special fund should be created for this purpose, ideally on the order of at least $5 million per year.

B. FEDERAL FUNDING

The federal government has a responsibility to reduce goods movement related emissions for two reasons. First, U.S. EPA is legally obligated to reduce emissions from interstate transportation sources to the levels needed to protect public health everywhere in the U.S., including in California with its severe air pollution problems. Second, because California ports are a gateway to the U.S. market, the federal government must help mitigate the disproportionate impacts in California communities that are conduits for movement of imported goods to other states.

The U.S. EPA has taken effective action to make new trucks substantially cleaner in the future. It has done the same for new, off-road diesel equipment, although over a much longer timeframe. The federal government has yet to deal effectively with the more challenging emission sources. It needs to take aggressive action to push tougher international emission standards for ships; to set more stringent national emission standards for locomotives or marine vessels (those regulations are currently pending); and to help clean up the millions of *existing* diesel engines in interstate trucks, off-road equipment, locomotives and ships.

Where federal regulations cannot reach, the national government must step forward, as California did, with sufficient incentive funding to fill the gap. For example, a federal version of California's Moyer Program would be highly cost-effective. The U.S. EPA has provided several small grants thus far, contributing $953,000 to California goods movement-related projects under the West Coast Clean Diesel Collaborative. Congress also took a step in the right direction last year by authorizing up to $200 million a year for five years for the National Clean Diesel Campaign – now it must follow through with the allocation of actual funding.

C. USER FEES

User-based fees are another approach that could be used to mitigate goods movement emissions and their impact on California residents. The hard part is figuring out who would collect such fees, under what authority, in what amount, and for what purpose. The most successful fees thus far have included some degree of industry buy-in and an element of voluntary participation. Once designed and implemented, fee revenues could be used to directly reduce emissions and support the strategies outlined in this plan. They could also be used to help support needed infrastructure improvements or security. There are other fee options that could be used to provide needed emission reductions. For example, port authorities could develop a fund as part of a port-wide declining emission bubble that would allow the entire port to achieve emissions reductions in the most effective manner available to the particular port. Enforceable agreements with railroads, shipping and cargo companies could include provisions for the companies to fund environmental mitigation projects.

D. OTHER MARKET-BASED APPROACHES

ARB staff has been approached by a least one coalition that proposes to use a market-based incentive program to accomplish most, if not all of the emission reductions envisioned in this plan. The Maritime Goods Movement Coalition submitted a conceptual proposal that is included in Appendix C of this plan for reference. Market-based programs are very attractive where regulatory authority is limited by either legal or practical constraints. When designed properly, market incentives unleash the creativity and efficiency of multiple actors, getting to the desired outcome more quickly or less expensively than otherwise might be the case. However, for all their virtues, market-based approaches raise significant environmental concerns, particularly in nearby communities concerned about toxics trading, lack of control at proximate sources, other environmental justice impacts, and overall enforceability. ARB staff believes that it is important to keep the market-based trading option on the table for goods movement, but have not endorsed any particular approach at this time.